

Claim Amendments:

Please cancel claims 6, 13, 14, 17-19, 21, and 27.

Please add new claims 45-47.

Please amend claims 1-5, 7, 8, 11, 12, 15, 16, 20, 22-26, and 28-44 as follows:

1.) (currently amended) A method of ~~marking~~determining if an article for retrospective identification~~includes a taggant that comprises coded information, said method~~ comprising the steps of:

- a) ~~attaching a reporter element to~~providing an article;
- b) ~~subjecting the reporter element to energy stimulation to determine whether the article incorporates a taggant particle comprising at least one reporter element that emits a spectral signature responsive to energy stimulation;~~
- c) ~~detecting the reporter element's spectral signature response to the stimulation, wherein said spectral signature provides a first code; and~~
- d) ~~if the article incorporates the at least one reporter element, determining if the taggant particle further comprises a second constituent that provides a second code using a pre-defined algorithm, converting the response to an alpha-numeric code.~~

2.) (currently amended) A method according to claim 1, ~~further comprising the step of attaching the reporter element to a label and attaching the label to an article~~wherein the second constituent comprises an encoded particle comprising a sequence of colored layers, wherein the sequence of the colored layers provides the second code.

3.) (currently amended) A method according to claim 2, ~~further comprising the step of printing the alpha-numeric code on the label~~wherein the at least one reporter element is incorporated into the encoded particle.

4.) (currently amended) A method according to claim 1, ~~further comprising the step of recording the alpha-numeric code in a database in connection with an identification of the article to which the reporter element is attached~~wherein the at least one reporter element is incorporated into the second constituent.

5.) (currently amended) A method of marking an article for retrospective identification, comprising the steps of:

- a) ~~entraining a~~ providing a taggant particle comprising at least one reporter element and an encoded particle, wherein the at least one reporter element is entrained in a layer of ~~microcoded a particle comprising a sequence of colored layers, wherein a spectral signature of a reporter element is associated with a first code and the sequence of colored layers is associated with an independent, second code; and~~
- b) attaching the microcoded particle to ~~an~~ the article.

6.) (canceled)

7.) (currently amended) A method according to claim 6~~5~~, further comprising the steps of recording said ~~code~~ first and second codes in a database in conjunction with information identifying the article.

8.) (currently amended) A method according to claim 6~~5~~, further comprising the steps of assigning a unique identifier to ~~an~~ the article ~~to be marked and~~ attaching said unique identifier to said article.

9.) (original) A method according to claim 8, wherein said unique identifier is a serialized bar code.

10.) (original) A method according to claim 9, wherein said code and said bar code are printed on a label.

11.) (currently amended) A method according to claim 6~~5~~, wherein a plurality of reporter elements are incorporated into the ~~microcoded-encoded~~ particle[[s]].

12.) (currently amended) A method according to claim 6, wherein said ~~spectral code~~
~~includes~~reporter elements comprise two reporter elements having different spectral responses
to energy stimulation.

13.) (canceled)

14.) (canceled)

15. (currently amended) Method of claim ~~14-5~~ further comprising the step of
~~entraining~~wherein at least two different types of reporter elements are entrained within one
layer of a ~~microencoded~~the encoded particle.

16. (currently amended) Method of claim ~~14-5~~ further comprising the steps of
~~entraining~~wherein one or more different reporter elements are entrained in two or more
layers of a ~~microencoded~~the encoded particle.

17-19.) (canceled)

20. (currently amended) An identification particle for use in retrospective identification,
comprising:

- a) ~~a microparticle~~an encoded particle comprising a sequence of colored layers; and
- b) at least one reporter element entrained in a layer of said ~~microparticle~~encoded
particle, wherein a first code is associated with the at least one reporter element and a second
code is associated with the sequence of colored layers.

21. (canceled)

22. (currently amended) ~~An~~The identification particle ~~for use in retrospective~~
~~identification~~according to claim 21~~20~~, wherein a reporter element resides in ~~one of the~~a first
surface layer[[s]] of the ~~microparticle~~encoded particle.

23. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim 22, wherein a reporter element resides in both surface layers a second surface layer of the microparticle encoded particle.

24. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim 20, wherein more than one reporter element is entrained in a layer of the microparticle encoded particle.

25. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim ~~21~~20, wherein one reporter element resides in one layer of the microparticle encoded particle, and another reporter element resides in another of the layers of the microparticle encoded particle.

26. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim 21, wherein each layer of the microparticle encoded particle contains one reporter element, and each reporter element is distinct from the others in the microparticle encoded particle such that each generates a different characteristic absorption/emittance responsespectral response to energy stimulation.

27. (canceled)

28. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim ~~21~~20, wherein ~~one a~~ layer of said microparticle encoded particle contains no reporter element.

29. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is [[a]] fluorescent.

30. (currently amended) ~~An~~The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is phosphorescent.

31. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is ~~an~~-upconverting phosphorescent.
32. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is photochromic.
33. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is thermochromic.
34. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is electrochromic.
35. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element is infrared fluorescent.
36. (currently amended) ~~An~~ The identification for use in retrospective identification according to claim 20, wherein said reporter element ~~is~~ comprises semi-conducting nanocrystals.
37. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said reporter element ~~is~~ comprises an isotopic isomer.
38. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, wherein said ~~reporter element is~~ first code is associated with a detectable mass of a reporter element.
39. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, further comprising a bar code embossed on a surface layer of the ~~microparticle~~ encoded particle.

40. (currently amended) ~~An~~ The identification particle for use in retrospective identification according to claim 20, further comprising indicia embossed on a surface layer of the ~~microparticle~~ encoded particle.

41. (currently amended) A method of forming an identification particle for use in retrospective identification, comprising the steps of:

- a) ~~forming a multi-layer microparticle~~ an encoded particle comprising a sequence of colored layers;
- b) ~~entraining [[a]] at least one reporter element in one of said microparticle layers~~ a layer of the encoded particle;
- c) associating a first code with the at least one reporter element; and
- d) associating a second code with the sequence of colored layers.

42. (currently amended) ~~[[A]]~~ The method for retrospective identification, according to claim 1, wherein said first code is derived from information indicative of how the intensity of a spectral signature of a reporter element, when subjected to energy stimulation, generates a characteristic graph of the function of intensity as it varies with frequency of stimulating energy.

43. (currently amended) ~~[[A]]~~ The method for retrospective identification, according to claim 1, wherein said first code is derived from information indicative of how the intensity of a spectral signature of a reporter element, when subjected to energy stimulation, generates a characteristic graph of the function of intensity as it varies with wavelength of stimulating energy.

44. (currently amended) A method of marking an article for retrospective identification, further comprising the step of: ~~e) — entraining a reporter element in a microparticle~~ incorporating a taggant particle into the article, wherein the taggant article comprises (a) at least one reporter element that emits a spectral signature responsive to

energy stimulation, wherein said spectral signature provides a first code; and (b) a second constituent that provides a second code.

45. (new) The method of claim 44, wherein the at least one reporter element is incorporated into the second constituent.

46. (new) The method of claim 44, wherein the second constituent comprises an encoded particle comprising a sequence of colored layers, wherein the sequence provides the second code.

47. (new) The method of claim 46, wherein the at least one reported element is incorporated into the encoded particle.